

-- 30. (NEW) A method for producing an antibody against an HIV-1 type O virus comprising:

(a) inoculating an animal with an HIV-1 Env polypeptide comprising an amino acid sequence selected from the group consisting of:

CysValArgProGlyAsnAsnSerValLysGluIleLysIleGlyProMetAlaTrpTyrSerMetGlnIle  
GluArgGluGlyLysGlyAlaAsnSerArgThrAlaPheCys (SEQ ID NO:93);

CysLysAsnArgLeuIleCys (SEQ ID NO:5);

ArgLeuLeuAlaLeuGluThrPhelleGlnAsnTrpTrpLeuLeuAsnLeuTrpGlyCysLys  
AsnArgLeuIleCys (SEQ ID NO:6);

ArgAlaArgLeuLeuAlaLeuGluThrPhelleGlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCys  
LysAsnArgLeuIleCysTyrThrSerValLysTrpAsnLysThr (SEQ ID NO:7);

LysGluIleLysIle (SEQ ID NO:23);

GluArgGluGlyLysGlyAlaAsn (SEQ ID NO:24);

CysValArgProGlyAsnAsnSerValLysGluIleLysIle (SEQ ID NO:25);

GlnIleGluArgGluGlyLysGlyAlaAsnSerArg (SEQ ID NO:26);

ArgLeuLeuAlaLeuGluThrLeuMetGlnAsnGlnGlnLeu (SEQ ID NO:29);

LeuAsnLeuTrpGlyCysArgGlyLysAlalleCysTyrThrSerValGlnTrpAsnGluThrTrpGly  
(SEQ ID NO:30);

CysArgGlyLysAlalle (SEQ ID NO:31);

SerValGlnTrpAsn (SEQ ID NO:32);

ArgLeuLeuAlaLeuGluThrLeuMetGlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCysArgGly  
LysAlalleCysTyrThrSer (SEQ ID NO:33);

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GlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCysArgGlyLysAlaIleCysTyrThrSerValGlnTrp  
Asn (SEQ ID NO:34);

ThrPhelleGlnAsn (SEQ ID NO:40);

TrpGlyCysLysAsnArg (SEQ ID NO:41) and

(b) isolating an antibody that binds to said HIV-1 Env polypeptide.

31. (NEW) The method of claim 30, wherein said method comprises isolating, serum from said animal.

32. (NEW) A kit for the detection of antibodies against an HIV-1 type O virus in a biological sample comprising:

(a) a polypeptide comprising an amino acid sequence selected from the group consisting of:

CysValArgProGlyAsnAsnSerValLysGlulleLysIleGlyProMetAlaTrpTyrSerMetGlnIle  
GluArgGluGlyLysGlyAlaAsnSerArgThrAlaPheCys (SEQ ID NO:93);

CysLysAsnArgLeulleCys (SEQ ID NO:5);

ArgLeuLeuAlaLeuGluThrPhelleGlnAsnTrpTrpLeuLeuAsnLeuTrpGlyCysLys  
AsnArgLeulleCys (SEQ ID NO:6);

ArgAlaArgLeuLeuAlaLeuGluThrPhelleGlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCys  
LysAsnArgLeulleCysTyrThrSerValLysTrpAsnLysThr (SEQ ID NO:7);

LysGlulleLysIle (SEQ ID NO:23);

GluArgGluGlyLysGlyAlaAsn (SEQ ID NO:24);

CysValArgProGlyAsnAsnSerValLysGlulleLysIle (SEQ ID NO:25);

GlnIleGluArgGluGlyLysGlyAlaAsnSerArg (SEQ ID NO:26);

ArgLeuLeuAlaLeuGluThrLeuMetGlnAsnGlnGlnLeu (SEQ ID NO:29);

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LeuAsnLeuTrpGlyCysArgGlyLysAlalleCysTyrThrSerValGlnTrpAsnGluThrTrpGly  
(SEQ ID NO:30);

CysArgGlyLysAlalle (SEQ ID NO:31);

SerValGlnTrpAsn (SEQ ID NO:32);

ArgLeuLeuAlaLeuGluThrLeuMetGlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCysArgGly  
LysAlalleCysTyrThrSer (SEQ ID NO:33);

GlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCysArgGlyLysAlalleCysTyrThrSerValGlnTrp  
Asn (SEQ ID NO:34);

ThrPhelleGlnAsn (SEQ ID NO:40);

TrpGlyCysLysAsnArg (SEQ ID NO:41) and

(b) a detection reagent.

33. (NEW) The kit of claim 32, further comprising a negative control sample.

34. (NEW) The kit of claim 32, further comprising an incubation buffer.

35. (NEW) A method for preparing a lysate of an HIV-1 virus comprising:

(a) separating an HIV-1 virus from cells infected with said virus and

(b) lysing said virus,

wherein said virus comprises an Env protein that comprises an amino acid  
sequence selected from the group consisting of:

CysValArgProGlyAsnAsnSerValLysGlulleLyslleGlyProMetAlaTrpTyrSerMetGlnlle  
GluArgGluGlyLysGlyAlaAsnSerArgThrAlaPheCys (SEQ ID NO:93);

CysLysAsnArgLeulleCys (SEQ ID NO:5);

ArgLeuLeuAlaLeuGluThrPhelleGlnAsnTrpTrpLeuLeuAsnLeuTrpGlyCysLys  
AsnArgLeulleCys (SEQ ID NO:6);

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LeuAsnLeuTrpGlyCysArgGlyLysAlalleCysTyrThrSerValGlnTrpAsnGluThrTrpGly  
(SEQ ID NO:30);

CysArgGlyLysAlalle (SEQ ID NO:31);

SerValGlnTrpAsn (SEQ ID NO:32);

ArgLeuLeuAlaLeuGluThrLeuMetGlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCysArgGly  
LysAlalleCysTyrThrSer (SEQ ID NO:33);

GlnAsnGlnGlnLeuLeuAsnLeuTrpGlyCysArgGlyLysAlalleCysTyrThrSerValGlnTrp  
Asn (SEQ ID NO:34);

ThrPhelleGlnAsn (SEQ ID NO:40);

TrpGlyCysLysAsnArg (SEQ ID NO:41).

36. (NEW) The method of claim 35, further comprising pelleting said virus by  
centrifugation.

37. (NEW) The method of claim 35, further comprising isolating nucleic acid  
from said virus. --

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